Knowledge Organisers

Year 9

Summer Term 2025

Name: _____

ST TERESA of CALCUTTA Catholic Academy Trust

After school, every day, you should learn knowledge from **TWO** subjects on your knowledge organiser each night. Your class teacher may set you specific tasks on Satchel One, linked to the knowledge that you will be expected to learn. The timetable below tells you which subjects you should focus on each night. It doesn't matter if you don't have that particular subject on that day, just follow the timetable for your home learning. You should spend **half an hour** on each subject. You may use your purple homework book to complete tasks neatly.

TIMETABLE OF SUBJECTS

Monday: English and Geography
Tuesday: Science and Art / DT / Food
Wednesday: Maths and History
Thursday: RE and Computer Science
Friday: MFL and Music / Drama

Reading at home
There is also an expectation that you should read a book of your choice for 30 minutes everyday. This should be signed off in your planner by a parent.

Take pride in your work!

- Each night, write the date and title and underline it neatly with a ruler.
- Label it Subject 1 and then rule off after the self-testing is completed. Then Subject 2 and self-test.
- Use a black or blue pen for your self-testing.
- These notes will then form your revision when you prepare for assessments, so you need to be able to read them!

How to learn knowledge from my knowledge organiser:

- Look at the work, cover it over, write it out again and check it.
- Look. Cover. Write. Check.
- Ask someone to test you and ask you questions about the topic
- Create mind maps on the topic
- Create flashcards on the topic
- Try writing out the key words or new vocabulary into new sentences
- Create a mnemonic
- Draw a diagram of the process
- Read further around the subject

Romeo and Juliet – **Knowledge Organiser**

Key characters

- Romeo
- Juliet
- Lord and Lady Montague
- Lord and Lady Capulet
- Tybalt
- Benvolio
- Mercutio
- Nurse
- Friar Lawrence

Romeo and Juliet
William Shakespeare

Context

Elizabethan England was a fiercely patriarchal society with laws that heavily restricted what women could and could not do. Women were also barred from voting, and though they could inherit property from their father or their husband, they could not themselves purchase property. In addition to these legal restrictions, women were also bound by strict social expectations that did not apply equally to men. Sermons and books written during the Elizabethan era encouraged women to be silent and obedient to male authority, whether that of their father or their husband. Women were regarded as "the weaker sex", not just in terms of physical strength, but emotionally too. It was believed that women always needed someone to look after them. If they were married, their husband was expected to look after them. When a woman's father deemed her ready to marry, he had a large degree of control of who she married. Among the aristocracy, where marriages were often more about politics than love, women often had no say at all in who they married. Upon entering marriage, a woman ceased to be her father's responsibility, and her husband became her legal master.

Key Vocab – definitions

Tragedy
A play dealing with tragic events and having an unhappy ending; about the downfall of the main character

Unrequited
Love not being returned.

Plague
Infectious disease.

Fate
Predetermined events outside a person's control.

Hegemonic Masculinity
Behaviour that legitimises men's dominant position in society.

Mortal Sin
An act which can lead to damnation.

Hierarchy
How members of society are ranked according to their status or authority.

Feud
A prolonged or bitter quarrel.

Playwright

William Shakespeare was writing plays and poems during the Elizabethan period (1558 -1603) and the Jacobean period (1603 – 1625). Shakespeare wrote many comedies, tragedies and also historical plays which were performed at The Globe Theatre. Shakespeare had to get the permission of the King or Queen to perform his plays, so he would ensure he included characters and scenes which would impress the monarch at the time.

Summary of the play

An age-old vendetta between two powerful families erupts into bloodshed. A group of masked Montagues risk further conflict by gate-crashing a Capulet party. A young lovesick Romeo falls instantly in love with Juliet, who is due to marry her father's choice – the County Paris. With the help of Juliet's nurse and Friar Lawrence, the couple marry next day, but Romeo's attempt to halt a street fight leads to the death of Juliet's cousin, Tybalt and consequently Romeo is banished. In a desperate attempt to be reunited with Romeo, Juliet follows the Friar's plan and drinking a potion, fakes her own death. The message fails to reach Romeo and believing Juliet is dead, he takes his life in her tomb. Juliet wakes to find his corpse and kills herself. The grieving families agree to end their feud.

Key Themes

Love

Family and Duty

Destiny/Fate

Violence

ETHOS *Credibility* **PATHOS** *Emotion* **LOGOS** *Logic*

Devices to include:
- Anecdote
- Statistics
- Repetition
- Triple Emphasis
- Hyperbole
- Rhetorical Questions
- Voice of the Expert
- Direct Address

Method	Example
Anadiplosis	rely on his honour—honour such as his?
Anaphora	We cannot…- we should not… - we must not…
Chiasmus	Working hard? Or hardly working?
Epistrophe	Of the people, by the people, for the people
Oxymoron	cruel kindness
Litotes	not a bad singer

Ethos (character): known as "the appeal to authority" or "the appeal to credibility." This is the method in which a person relies on their credibility or character when making an appeal or an argument.

Pathos (emotions): known as "the appeal to emotion." Pathos refers to the method of trying to persuade an audience by eliciting some kind of emotional reaction.

logos (logic): known as "the appeal to reason." This method involves using facts and logical reasoning to support an argument and persuade an audience.

Kairos (time or moment): devices in this category are dependent on the idea that the time has come for a particular idea or action. The very timeliness of the idea is part of the argument.

Discourse Markers		
Furthermore	It is clear that	Obviously,
Despite… the evidence is clear that…	Evidently	Clearly
Overwhelmingly evidence indicates	Conversely	It is apparent that…

Vocabulary bank		
Seismic shift	cajoling	Detrimental
Heinous	exacerbate	exacerbate
adamant	Irrevocably	Paramount
Dispel	Ephemeral	Modicum

Model Paragraph

In 2020, the RSPCA rescued a shocking 1,246 dogs from the streets, in 2021, the figure was 1,754, in 2022 it was a staggering 2,325. How much longer are we going to ignore the problem of abandoning poor, vulnerable, weak and helpless animals? We are supposed to be kind creatures, creatures who care, creatures who nurture – but these figures simply do not support the evidence. We are becoming creatures who abandon, creatures who lack empathy, creatures who harm. The light burden that they put on our lives, results in them bearing a heavy burden at our hands. Let us make a change today.

Maths Year 9 Summer 1: ANGLE FACTS INCLUDING ON PARALLEL LINES

Key Concepts

Angles in a **triangle equal 180°**.

Angles in a **quadrilateral equal 360°**.

Vertically opposite angles are equal in size.

Angles on a **straight line equal 180°**.

Base angles in an isosceles triangle are equal.
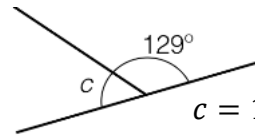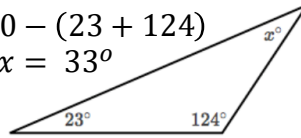
Alternate angles are equal in size.

Corresponding angles are equal in size.

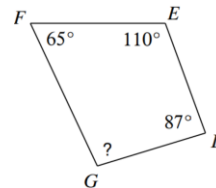**Allied/co-interior angles** are equal 180°.

Examples

$x = 180 - (23 + 124)$
$x = 33^o$

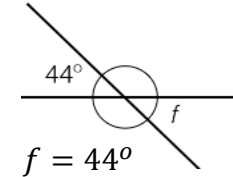23°   124° $x°$

129°
c
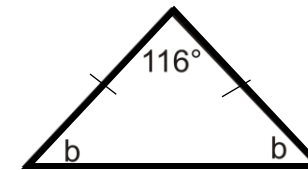$c = 180 - 129$
$x = 51^o$

F   E
65°   110°
87°   D
?
G
$? = 360 - (65 + 110 + 87)$
$? = 98^o$

44°
f
$f = 44^o$

116°
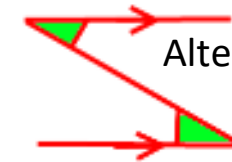b   b
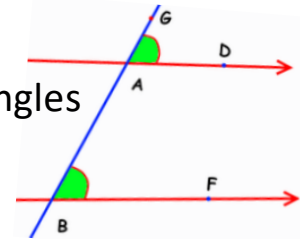$b = (180 - 116) \div 2$
$b = 32^o$

Alternate angles are equal

Corresponding angles are equal
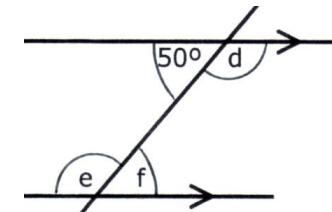
G
D
A
F
B

Allied/co-interior angles equal 180°
=180°

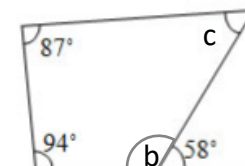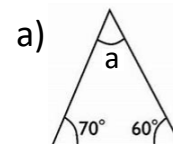ST TERESA of CALCUTTA
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MATHSWATCH

G18

Questions

Calculate the missing angle:

a)
a
70°   60°

87°   c
94°   b   58°

50°   d
e   f

ANSWERS: 1) a=50°   2) b=122° c=57°   3) d=130° e=130° f=50°

Maths Year 9 Summer: TYPES OF ANGLE AND ANGLES IN POLYGONS

Key Concepts

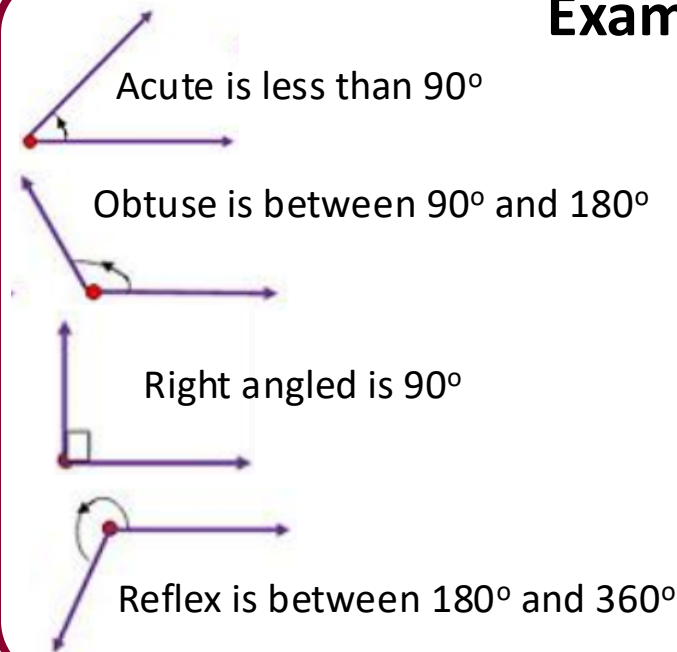**Regular polygons** have equal lengths of sides and equal angles.

Angles in polygons
Sum of interior angles
$$= (number\ of\ sides - 2) \times 180$$

Exterior angles of **regular** polygons $= \frac{360}{number\ of\ sides}$

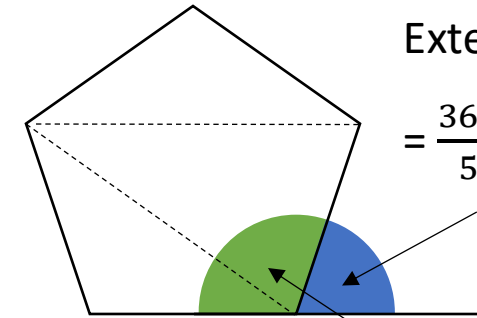**Types of angle**
There are four types which need to be identified – acute, obtuse, reflex and right angled.

Examples

Acute is less than 90°

Obtuse is between 90° and 180°

Right angled is 90°

Reflex is between 180° and 360°

Regular Pentagon

Exterior angles

$$= \frac{360}{5} = 72^o$$

Sum of interior angles
$$= (5 - 2) \times 180$$
$$= 540^o$$

Interior

$$angle = \frac{540}{5} = 108^o$$

MATHSWATCH

G11, G19

Key Words
Polygon
Interior angle
Exterior angle
Acute
Obtuse
Right angle
Reflex

Questions

1) Calculate the sum of the interior angles for this regular shape.
2) Calculate the exterior angle for this regular shape.
3) Calculate the size of one interior angle in this regular shape.

ANSWERS: 1) 720° 2) 60° 3) 120°

Maths Year 9 Summer 1: PYTHAGORAS AND TRIGONOMETRY

Key Concepts

Pythagoras' theorem and basic trigonometry both work with **right angled triangles.**

Pythagoras' Theorem – used to find a missing length when two sides are known
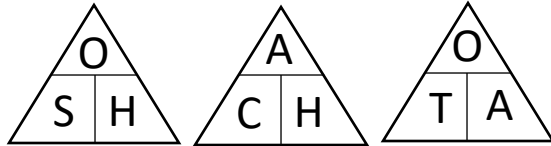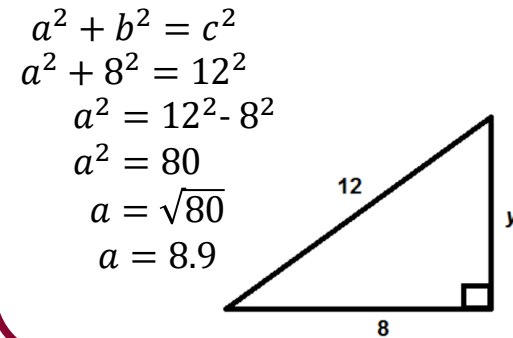$$a^2 + b^2 = c^2$$
c is always the hypotenuse (the longest side)

Basic trigonometry SOHCAHTOA – used to find a missing side or an angle

When finding the missing angle we must press **SHIFT** on our calculators first.

Examples

Pythagoras' Theorem
$$a^2 + b^2 = c^2$$
$$6^2 + 8^2 = x^2$$
$$100 = x^2$$
$$\sqrt{100} = x$$
$$10 = x$$

$$a^2 + b^2 = c^2$$
$$a^2 + 8^2 = 12^2$$
$$a^2 = 12^2 - 8^2$$
$$a^2 = 80$$
$$a = \sqrt{80}$$
$$a = 8.9$$

$$\sin x = \frac{8}{10}$$
$$x = \sin^{-1}\left(\frac{8}{10}\right)$$
$$x = 53.1^o$$
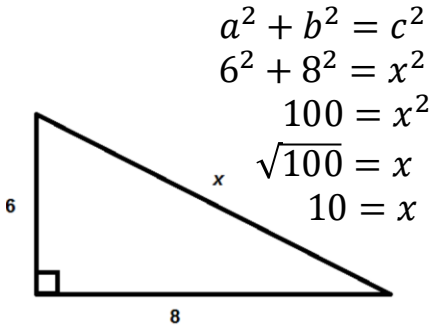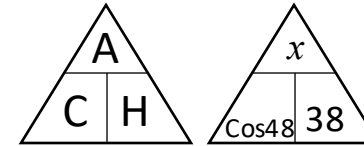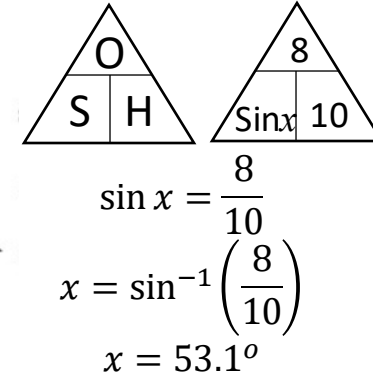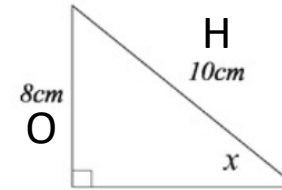
$$\cos 48 = \frac{x}{38}$$
$$38 \times \cos 48 = x$$
$$x = 25.4m$$
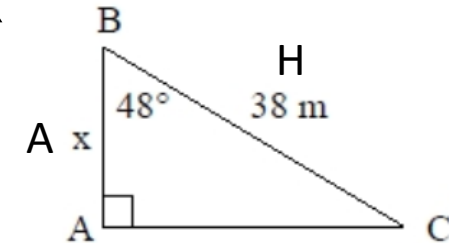
MATHSWATCH

G30, G35a, G35b

Key Words
Right angled triangle
Hypotenuse
Opposite
Adjacent
Sine
Cosine
Tangent

Find the value of x.

a)

b)

c)

d)
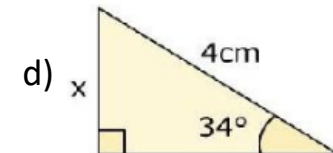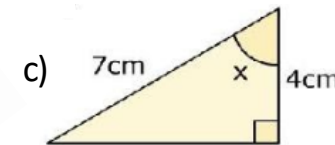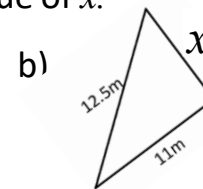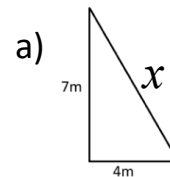
ANSWERS: a) 8.06m   b) 5.94m   c) 55.15°   d) 2.34cm

Science Year 9 Summer Term: Cellular processes and Separation techniques

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Glossary

Microscope – makes objects look bigger by making an enlarged image of them.

Specialised cells – cells which have special features to perform particular functions.

Enzyme – a protein produced by living organisms that acts as a catalyst.

Diffusion – spreading of particles from regions of high to regions of low concentration.

Osmosis – movement of water molecules across a partially permeable membrane, from a dilute solution to a more concentrated one.

Active transport – movement of particles across a cell membrane, usually from low to high concentration, against a concentration gradient. This requires energy.

States of matter – one of 3 different forms a substance can have: solid, liquid or gas.

Mixture – a substance containing 2 or more different substances that are not joined together.

Filtration – using a filter to separate insoluble substances from a liquid. E.g sand and water.

Crystallisation – separating the solute from the solution by evaporating the solvent. E.g. salt and water.

Chromatography – a technique used for separating the components of a mixture. E.g. inks.

Distillation – separating a liquid from a mixture by evaporating the liquid and then condensing it so it can be collected. E.g. ink and water.

Animal cell / Plant cell

nucleus
Cell membrane
cytoplasm
mitochondria
ribosomes
Cell wall
chloroplasts
vacuole
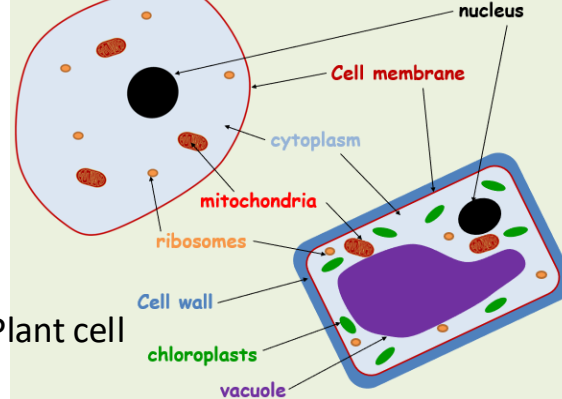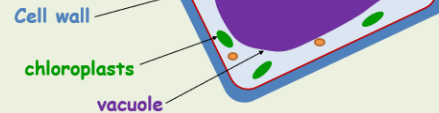
Bacterial cell
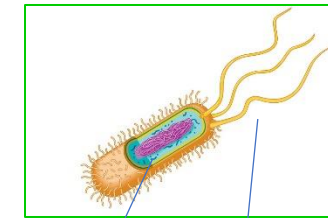
Chromosomal DNA
flagellum

Light microscope

Eyepiece
Objective Lens
Arm
Stage
Diaphragm
Fine Focus Knob
Light
Coarse Focus Knob
Base
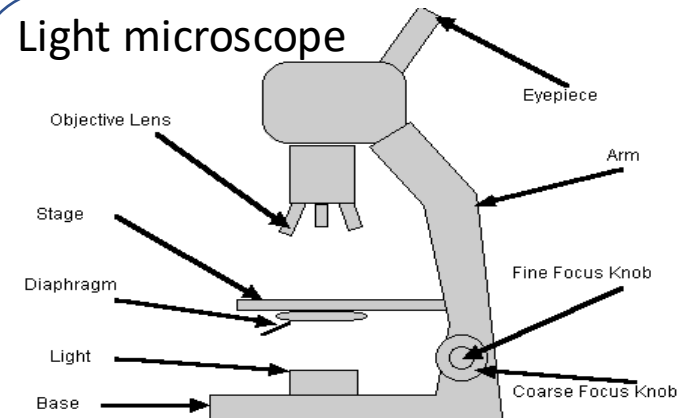
Enzyme lock and key model

Solution- A mixture of a solute and solvent.
Solute- A dissolved substance.
Solvent- The liquid a substance is dissolved in.

Chromatography

chromatography paper
S G F H
solvent
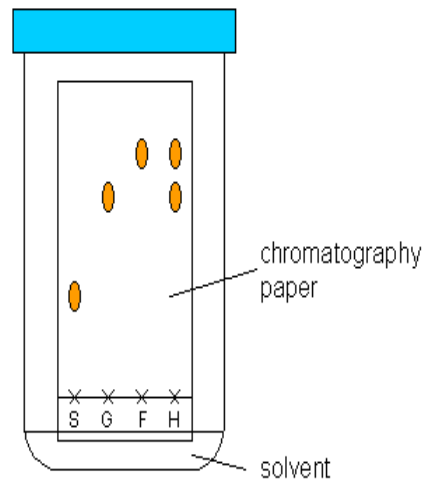
Distillation
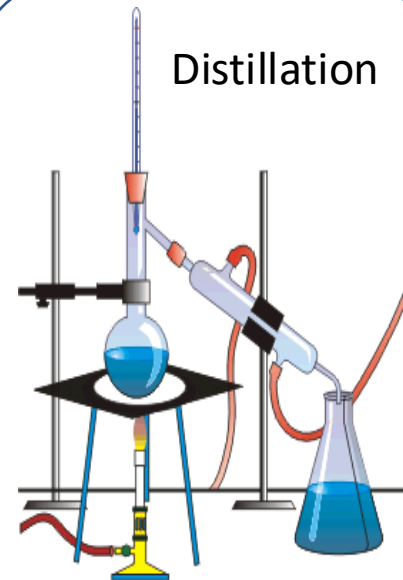
Filtration
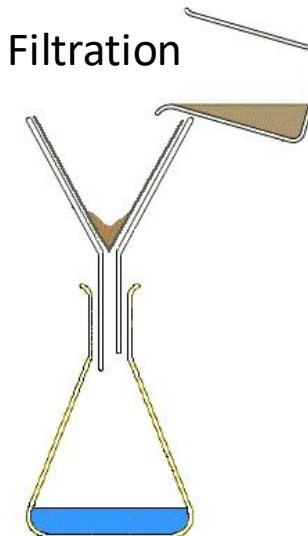
Crystallisation
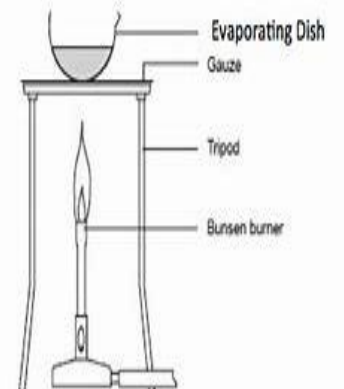
Evaporating Dish
Gauze
Tripod
Bunsen burner

- Ensure you know the MEANING and EFFECT of each sacrament – you should be able to add to what is listed below!!

- Baptism – initiation, part of the Gods family, journey of faith.

- Communion – look at in 2.2 – the most important sacrament

- Reconciliation- heal a broken relationship with God, start again, closer to God

- Confirmation – initiation, renew promises at Baptism, confirm our faith – active role in the Church

- Anointing of the sick – healing, prayer and anoint those who are vulnerable, make them stronger, feel comforted bu God and others

- Marriage – vocation – be committed to one other for life, declare love before God

- Holy Orders – vocation, dedicate your life to God and his people, provide the sacraments – eucharist/reconciliation

Source of wisdom and authority – Catechism (Catholic teachings) – 1210-1211
Christ instituted the sacraments - through the sacraments Christ is with us at key times in our lives, initiation, healing, vocation, there is an overlap with our natural and spiritual lives.

Importance of the sacraments for Roman Catholics
Receive Gods grace and blessing/ Mark the journey of faith/ Strengthen our faith/ Bring us closer to God – outward sign of invisible grace = faith

Divergent Christian practice
Orthodox Christians and Anglicans believe and practice the same as Catholics (seven sacraments).
Most Protestants only accept two sacraments-Baptism and Holy Communion as needed for salvation because they believe these are the only two sanctioned by Jesus in the Bible.
Some Protestants Baptists and Pentecostals believe only adults should be baptised when they agree to what is happening.
Salvation army and Quakers do not have any at all, they believe sacraments get in the way with our relationship with God, they believe the things we say and do are a distraction.

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'source and summit of Catholic life'CCC

Source of wisdom and authority - Lumen gentium
'really partaking of the body of the Lord in the breaking of the Eucharistic bread, we are taken up into communion with Him and with one another. Because the bread is one, we though many, are one body, all of us who partake of the one bread. In this way all of us are members of His body'

Structure of the Mass
Four parts;
Introductory Rite
Liturgy of the Word
Liturgy of the Eucharist
Concluding Rite/ final blessing

Nature and significance of the Mass

- At the Last supper Jesus instituted the Mass – 'Do this in memory of me' – obligation to go to Mass as Jesus commanded us to.

- We receive the body and blood of Jesus, this is a reminder that Jesus is really present and with us in this sacrament (transubstantiation).

- Commanded by God -keep the Sabbath day holy, going to Mass to receive the sacrament fulfils this commandment. Show our love of God.

- Come together as Gods family to show thanks for what he done for us – Eucharist means thanksgiving.

Divergent attitudes to liturgical worship –Evangelical Christians
Protestant – Non Liturgical
Worship without set prayer - believe worship comes through the Holy Spirit and so should be spontaneous – EXTEMPORE –without preparation. Music helps to express faith and connect with God (Gospel music).

Protestant -Evangelical Christians
Belief that Jesus is the only priest so there is no need for rituals – do not agree with Liturgical worship. Much more participation from the congregation – expressing their approval of what the leader says – 'Amen' 'Hallelujah' 'Praise the Lord'

Roman Catholic Practices – why is each part important?

Home

Takes place the night before the funeral is held in the family home – although it can take place in a funeral home or Church.

Service – readings/ reflections/ prayers

Some will have the body kept in a church – with a rota of people keeping vigil.

Church – The funeral Rite

The Church encourages Catholics to have a Requiem Mass for the repose of the souls of the dead.

The Funeral Liturgy is a time to remember and mourn the loss of the person but it is also an act of worship with hope in God and the risen Christ.

The priest incenses the coffin and sprinkles holy water onto it, final prayers and chants at the end of the funeral rite –

'May the angels lead you into paradise, may you have eternal rest'

Cemetery

Rite of committal – final act of the community of faith in caring for the body of the dead person.

Normally celebrated beside the open grave. The tomb/burial plot is blessed.

There is a reading – about the resurrection.

Prayers of farewell and commendation (praise for someone).

Coffin is sprinkled with holy water and then lowered into the ground.

Say the eternal rest. The priest blesses the mourners.

Christ
The Way, the Truth, and the Life.
JOHN 14:6

Aims of the funeral rite
1. **Communion with the deceased**
The *funeral mass* allows there to be a link with the deceased: We are joined together through prayer, we gather in communion.
2. **Communion of the community**
In *committing the body* the community expresses the hope that, with all those who have gone before them marked with the sign of faith, the deceased awaits resurrection and a reunion with God in heaven.
3. **Proclamation of eternal life**
Proclamation of the Christian faith in the Paschal mystery and assures the Catholic community of their eternal life, can give hope to anyone – even non Catholics, whatever their faith.
The Christian who dies in Christ Jesus is 'away from the body and at home with the Lord' – catechism.

Preparing my funeral – Vincent Nichols (Archbishop of Westminster)
Wrote a pamphlet outlining what can be part of the Liturgical prayer/hymns/ whether it should be a Mass/ readings/ burial or cremation.
HOW MIGHT THIS HELP ROMAN CATHOLICS?

The importance of prayer – why do Catholics pray?

Get **life into perspective** – step aside from the pressures of life and focus on God

Thanksgiving – helps us not to be selfish, to realise we depend on others.

Confession – helps us to not bottle up guilt, admit what we have done wrong, come to terms with it.

Supplication – feel we are doing something for someone else, may inspire us to help in a more active way.

Contemplation/ meditation – bring us inner peace, feel refreshed.

Closer to God – enables us to talk with him and become closer to him.

Worship God – we can show our love of God through prayer.

Source of wisdom and authority- *Matthew 6:5-14 – the Lords prayer,* the only prayer Jesus gave to us

An example of FORMULAIC prayer

- *Nature and significance of different types of prayer*

- **Different types of prayer**

- *Prayer can be FORMULAIC – Set – Liturgical or EXTEMPORE – less formal*

- *Formulaic – used in services/sacraments/ personal prayer – Hail Mary, Our Father…*

- *Extempore – personal prayer …………*

Vocal

- Use words out loud/ mentally to express prayer

Meditation

- Thinking about religious matters

Contemplation

- Communion with God – together with God

Importance of different types of prayer

Worship in the home: this is the heart of people's lives and can bring the family together.

Private worship: communicate one to one and express difficult emotions.

Public worship: gives a sense of belonging and community, encourages us to make friends and feel our faith is strong.

Prayer for different moods: sometimes people may need to be serious, or joyful or sorrowful.

> ### CCC 'Piety extends the liturgical life of the Church, but does not replace it'

Rosary

The Rosary is a form of prayer, it means 'crown of roses' because the circle of beads look like a crown.

The Rosary is often used in private prayer at home or in church . it might be used with others in Church. It is sometimes said on the evening before a Funeral Mass when the coffin is brought into Church.

Catholics encourage using this as a way of giving honour to Mary.

Some Anglicans may use it in private prayer.

Most Protestants would not use it as they do not put as much importance onto Mary. They believe that Mary had other children, was not the immaculate conception and did not assume into heaven.

Stations of the Cross

This is a series of prayers and mediations that honour the passion and death of Christ. There are 14 stations on the walls of a Church.

They are used in a Catholic Church on a Friday, especially in Lent and Good Friday.

In the early Church people would visit the scenes in Jerusalem, Catholics now practise this for people who cannot go.

Some Anglican, Methodist and Lutheran churches contain the stations of the cross and they provide a focus during Holy Week for a lot of Christian denominations.

Some Protestants do not follow them because some are not based on the Bible and some believe it is idolatry (worshipping idols)

Eucharistic adoration

This is when the Blessed sacrament is adored and worshipped. Catholic believe that Christ is truly present.

The Consecrated Host is placed into a Monstrance on an altar and adored. It may be used in a Parish to focus people on prayer.

Many Catholics perform Eucharistic adoration for an uninterrupted hour known as Holy Hour, when they keep watch with Christ for an hour. This reminds them of the disciples in the Garden of Gethsemane.

Most Protestants do not practise this because they do not believe in transubstantiation. They believe the elements are just symbols and so Christ is not truly present.

Source of wisdom and authority

The Catechism teaches that places of pilgrimage are the *'most appropriate places for prayer'*

Nature, history, purpose of pilgrimage

A Pilgrimage is a religious journey or holiday taken by a believer in a particular faith

First pilgrimages were to Jerusalem and the Holy Land – Jesus – life/death

Rome – Tomb of the martyrs – Peter and Paul, sites connected to the life and events of the Apostles.

Later – visit other places **connected to the Saints** and Our Lady – as we hear about their lives and events happen – apparition.

Where people visit and why

Rome- History – Peter and Paul, Vatican City – Pope, places.

Lourdes – Bernadette and Mary, miracle cures, strengthens people in their faith.

Walsingham – Mary, place for both RC and Anglican Christians - UK

Jerusalem- part of the Holy Land, so many sites and sacred places associated with Jesus and the early Church – site of the death and resurrection of Jesus.

Go to become closer to God, to ask for forgiveness, seek a cure, join others in faith, visit historical places linked to our religion, inspired by Christ, Mary, one of the saints and want to visit a place associated with them.

Divergent Christian understandings about whether pilgrimage is important today.
Protestant Christians have been critical.
Should not emphasise 'holy places' as we can **encounter God anywhere.**
Opposed to worshipping **Mary – idolatry**, they believe she had other children and should not be revered as the 'virgin Mary'
Should **not venerate the Saints** – only God can and should be venerated.
Some Protestants may go to places like Iona and Taize but not Walsingham and Lourdes.

- Love God and **Love of neighbour**
- Jesus told us to do this; it is the Greatest Commandment – Mark 12:29-31.
- It is at the heart of everything Catholics do.
- *'Love is the fulfilment of all our works' CCC*

Source of wisdom and authority – Matthews gospel. Parable of the Sheep and the Goats – a teaching from Jesus reminding people the way to show love of God is through love of each other. We must help those who are in need in society. This story also reminds us we are judged based on how we have lived our life – must do good!

CAFOD

Development programmes – long term help – bring about independence.

Disaster and emergency - immediate response – medication, food, water, shelter.

Raising awareness – educate us, we need to know about the suffering of others and what we can do to help

Speaking out on behalf of the poor to bring social justice – join campaigns – 'drop the debt', 'fair trade' – be a voice for the poor.

Why they help

Faith in action, follow the example of Jesus, fulfil teachings – love your neighbour, treat others as you would like to be treated, Church teaching – we have a responsibility to help those who are in need.

Social teachings on – justice, peace, reconciliation

Justice - God will reward the just; God wants people to treat each other fairly and with respect.

The rich should share with the poor 'anyone who does not do what is right is not a child of God, nor is anyone who does not love his brother' – 1 John 3:10

Peace and reconciliation – at the heart of the Christian gospel

Saint Paul said – 'Let us therefore make every effort to do what leads to peace…'

'Earthly peace is the image of the peace of Christ' CCC

Christians should be committed to forgiveness and reconciliation because it has the power to end all conflict. We must forgive those who wrong us.

Source of wisdom and authority.

Evangelli Gaudium – 'joy of the Gospel' Pope Francis, reminding Catholics to include the poor. Follow the teachings of Christ and promote social justice. Respect people human rights, need to come together to help one another

- **History and significance of evangelism**

- In order for the Church to grow and Christianity to survive we have always had missionaries – people who will go to others to preach the gospel.

- E.g. Disciples – Saint Peter and Saint Paul visited lots of places telling people about Jesus Christ and because of them the Church began as people believed.

- Today the decline in faith is where it used to be strongest and from where the Missionaries were sent – Europe

- **It is important because -**

- Share our faith out of love

- Faith helps us to cope with life

- Decline in the religion

- **Pope Francis said – Evangelii Gaudium – Catholics should 'renew their personal faith – produce an enthusiasm and attractiveness in society'. <u>Source of wisdom and authority.</u>**

- We might then inspire others to follow us and be a part of the Church

- Help people who are in need.

Divergent ways it is put into practice (Roman Catholic) – locally nationally globally – SUPPORT FAITH

Locally – within a parish – sacraments, Mass, support schools, festivals (Christmas and Easter), discussion and prayer groups, homily in Mass – learn about how God wants us to behave, Social facilities – brownies, cubs etc. lunch clubs for the elderly, parent and toddler groups

Nationally – Catholics attend national events to share faith, have a career, vocation to share faith (teacher), SVP society.

Globally –the Catholic Church runs 'mission diocese' -1100 Diocese in our world. It provides teaching schemes - training priests and support for the religious communities (nuns and Monks) and the building of Chapels, Churches, orphanages and schools across the world.

Main concerns are about those who proselytise – converting others

Trying to evangelise in a multi faith/ethnic society can be seen as **prejudice and discrimination**

Can lead to **arguments and violence**

Catholics **do not agree** with those who proselytise – they argue we should **live the gospel without putting pressure on others**.

However some Christians see the need to **actively convert as a duty** they must fulfil in order to **save others.**

History Year 9: The Cold War- When is a war not a war?

Key Words
Atomic Bomb- The belief that strong countries should have the biggest and strongest army and navy possible.
Hiroshima and Nagasaki
Communism- Agreements between countries to work together
Capitalism- The belief that a strong country must have a large empire
Cold War- Being extremely loyal to and proud of your country
Arms Race-Took place on July 24th in Sarajevo. Started a chain of events that start the First World War

August 1945 at 8.15am, an American bomber plane dropped the world's first atomic bomb on the Japanese city of Hiroshima. 80,000 people died as a direct result of the blast, and another 35,000 were injured. Even after this devastation, Japan did not surrender.
Three days later, another nuclear bomb was dropped by the Americans on the Japanese city of Nagasaki. At least 74,000 people died in the Nagasaki blast or from subsequent injuries.

Berlin Blockade
Stalin, in response to West uniting their sectors of Berlin, blockaded the city. This placed millions into potential starvation.
In response, West launched airlift of supplies for eleven months.
Consequences
• 1st conflict of Cold War, no one knew how it would turn out. Would the planes be shot down, would this lead to war? Led to increased tension between the superpowers.
• NATO and Warsaw Pact set up afterwards. This meant a future war would now include members of both alliances.

Capitalism
• <u>Low taxes,</u> poor should work way out of poverty, accept society will be <u>unequal.</u>
• Private ownership of Land and businesses. Owners keep profits.
• Free elections/Press
• Tend to be popular with the rich/owners of industry

Communism
• Believe in an <u>equal</u> society, <u>confiscate</u> property of rich to share with poor, encourage <u>revolution</u> against 'capitalist' class (rich),
• <u>Internationalist</u>
• <u>Dictatorship</u>
• Control all media
• Lack of personal freedom

Berlin Wall
Reasons for the Wall
People living in West Berlin enjoyed a high standard of living.
For those living in East Berlin and East Germany life was hard and standard of living was poor. They were constantly reminded of their differences. Between 1945 – 60 it is thought that 3 million people crossed from East to West Berlin.

Consequences
• **Flow of refugees reduced to a trickle**
• **propaganda victory for the 'West' – they claimed Communist countries had to build a 45km wall to imprison people**

Cuban Missile Crisis

After the USA's failed attempt to overthrow the Cuban leader Castro, USSR's leader Khrushchev saw an opportunity to challenge the USA. He argued he wanted to install the missiles with nuclear war heads in Cuba to stop the US taking any action against Cuba. The USA also had similar missiles based in Turkey very close to the USSR. Kennedy believed the missiles were a direct threat to the USA as Cuba was only 90 miles off the US coast. It sparked a 13 day stand off that could have brought the world to nuclear annihilation.
Consequences

• The two sides sign The Nuclear Test Ban Treaty was signed. This banned testing of nuclear weapons above ground.

• A hotline was set up to allow direct communications between Washington DC to Moscow to avoid any future crises coming so close to a war

• Khrushchev was made to look weak in the eyes of the Russian people for removing the missiles

• Kennedy had stood up to the Soviet Union and forced the missiles to be removed

To determine how significant something or someone is, think about, is it;
Remarkable – include the scale, numbers involved
Resulted in change – include what changes or developments occurred at the time and later
Revealed – include what attitudes were at the time
Remembered – Include how do we remember today
Relevant – how does the event/person/development affect people today, what lessons can be learnt

Geography Year 9 Summer Term 2 – How am I a global citizen?

What do I need to know?

What is sustainability?	
How can I reduce my carbon footprint?	
How is global energy use changing?	
How far does our food travel?	
How does my outfit impact the planet?	
Are luxury items worth it?	
Where does my waste go?	
What is the life cycle of a plastic bag?	
How can trade be fair for everyone?	

Skills to develop

Develop skills to answer extended questions
Evaluation skills

What is global citizen?
Someone who respects, conserves and protects, to make the world a welcome place for all

How can we be sustainable?
Every choice we make, whether it's the food we eat, the clothes we wear or how we get to school can have an impact on the environment and people. Some choices are more sustainable than others.

What is a carbon footprint?
The amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organisation or community

How is it calculated?
- Food: how much meat is consumed, waste food products
- Transport: size and type of car, how often flights are taken
- Home: insulation, where your energy comes from
- Personal items: how often do you buy a new mobile phone

How to reduce your carbon footprint
- Buy local produce
- Go on holiday in the UK
- Install double glazed windows

How is energy use changing?
Global energy use is increasing. This is due to:
- Increase population
- Developing technology
- Increased quality of life
- Increased wealth in emerging countries

As countries begin to develop, they tend to use more energy. This is to pay for:
- More car use
- More electrical appliances
- Higher standard of living

How far does our food travel?
Food miles: the distance travelled by food by the time it reaches our homes

Why do we import food?
Some food cannot be grown in the UK climate, we want a wider range of food

Problems of food miles
- Greenhouse gas emissions contribute to climate change
- Food is not as fresh
- Waste produced
- Increased road traffic

Solutions
Buy local, reduce waste, buy seasonal

Geography year 9 Summer Term 2 – How am I a global citizen?

Key Words

Carbon Footprint	The amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organisation or community.
Sustainability	to meet the needs of the present without compromising the needs of future generations
GDP	Gross domestic product
Food miles	The distance our food travels to get to our homes.
Fast Fashion	Inexpensive clothing that move quickly from the catwalk to stores to meet new trends.
Resource	A supply of money, materials, staff, and other assets that can be drawn on by a person or organization.
Recycling	The action or process of converting waste into reusable material.
Fairtrade	Trade between companies in developed countries and producers in which fair prices are paid to the producers.
Fast Fashion	A design, manufacturing, and marketing method focused on rapidly producing high volumes of clothing.

How does fashion impact the planet?

Fast fashion has become evermore common due to globalisation. Brand include: Boohoo, missguided, ASOS and shein.

Impacts include:
- Low pay for workers producing the clothes, poor conditions
- Polluting the environment with chemicals
- Waste on a large scale
- Huge amounts of water used

Who is responsible?

Responsibility is not on one person but on:
- Consumers
- The government of the emerging and developed countries
- Factory owners
- Retailers

How can everyone benefit from trade?

Fairtrade ensures producers get:
- Fair price for their goods
- Long-term contracts
- Training in business

Fair trade products include:
- Coffee
- Chocolate
- Footballs
- Flowers

Are luxury items worth it?

Luxury items such as gold and diamonds are sold for hundreds of pounds.

The hidden cost is how they are produced
- Gold mined in Ghana – people work for long hours for very little pay
- Dangerous conditions to work in
- Those selling the items make the most money

Where does my waste go?

Waste is disposed of in 3 different ways in the UK:
- Landfill: disposal by burying it
- Recycling: Waste converted into reusable objects
- Incineration: disposal by burning

Of these, recycling is the most sustainable however it also requires huge amounts of energy to do

When not disposed of correctly, waste can end up in the environment e.g in the ocean

Great Pacific Garbage Patch

In the north Pacific ocean there is a rubbish patch made of particles 620,000 km2. Some rubbish in this is over 50 years old.

Read

Python

Python is a really popular textual programming language. It uses a syntax which lets you type in a line of code and press enter to execute that code.

Python is increasingly popular and used to create apps such as Instagram and Spotify.

Selection

Selection is where decisions are made that affect which instruction are carried out next.

score = INPUT("Enter your score")
IF score > 40 THEN
    print("You have passed!")
ELSE
    print("You have failed")

Iteration

Iteration is where a certain set of instructions are repeated. The number of times that the instructions are repeated can be fixed, or can depend on a condition.

📕 Key Terms

Programming: writing computer code to create a program, to solve a problem

Text based Programming: Programming using text such as Small Basic or Python

Sequence: Sequence means to set down instructions one after another for the computer to run

Algorithm: This sets out a sequence of steps, that, when ran , will carry out a specific task.

Loop: Repeatedly doing a piece of code

Selection: Choosing between possible actions

Variable: A piece of data that you can alter

Loops

FOR Loops

Will repeat the code inside them a fixed number of times. The number of times that the code repeats will depend on an initial value and the end value.

WHILE Loops

Controlled by a condition at the start of the loop, keeps going while the condition is true, never running the code if the condition is initially false. Will repeat forever if the condition remains true.

Errors

If there is an error in your code it will either not work, or work but not in the way that you want it to. This could be the smallest of errors, errors are called bugs.

DT Year 9 Unit 4: Architecture

Glossary

Modular building
is a prefabricated building that consists of repeated sections called modules. Modularity involves constructing sections away from the building site, then delivering them to the intended site. Installation of the prefabricated sections is completed on site.

Floor plan
In architecture and building engineering, a floor plan is a technical drawing to scale, showing a view from above, of the relationships between rooms,

Scale model
Scale models are generally smaller than large prototypes such as vehicles, buildings, or people
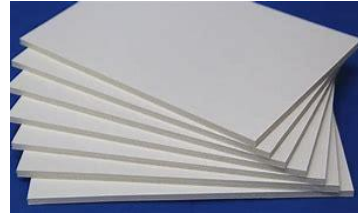

MEASURE TWICE, CUT ONCE!

Accuracy is key to the success of your product. Using a try square a rule will help you achieve accurate measurements.

Foam board is a **lightweight, versatile and durable type of board used in a range of arts and crafts purposes**. Foam board is available in black or white and in a range of sizes from A0 to 43 as well as differing levels of thickness.

Greyboard is made from 100% recycled materials and can be used in many craft construction projects to add extra strength and rigidity. This sturdy **greyboard** gives your craft constructions a stronger feel, either used as backing card or a protective outer layer.

Guy Builds a Modern Castle out of Shipping Containers (interestingengineering.com)

What is Greyboard and what is it used for? (papermilldirect.co.uk)

Modular buildings can be erected quickly and at a low cost, and improvements in stock control mean less storage space is needed.

Glossary

Crazy contraptions
A device or machine that looks awkward or old-fashioned, especially one that you do not know how to use.

Kinetic Artist
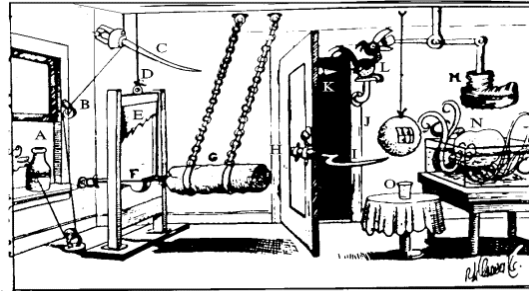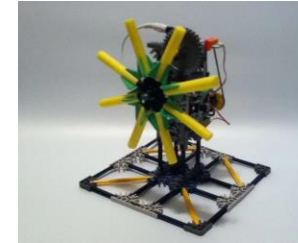Relating to or resulting from motion.

Winch
a hauling or lifting device consisting of a rope or chain winding round a horizontal rotating drum, turned typically by a crank or by motor.

Pulleys
a wheel with a grooved rim around which a cord passes, which acts to change the direction of a force applied to the cord and is used to raise heavy weights.

Chain reaction
a series of events, each caused by the previous one:

Joseph Herscher, Kinetic designer

Can you solve problems?
What would you need to do to enable you to make your bed while you were in the bath? What sort of 'crazy contraption could you create'

Think of the 'Mouse Trap Game'. There is a system of tubes, steps and winches etc. that allow a mouse to be caught. How could you catch a mouse?

Seeing Chain Reaction in Action

Designing for the Chain Reaction Activity

Making Chain Reaction Elements

Chain reaction Resources

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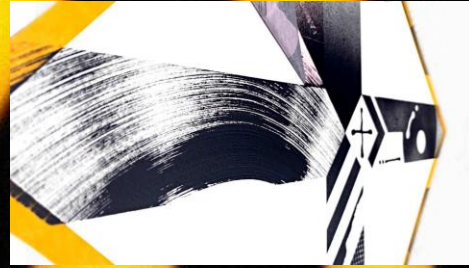Catholic Academy Trust

GLOSSARY

Op art is short for '**optical art**'. The word optical is used to describe things that relate to how we see.

The style is characterised by **abstract patterns, often in black and white, with a bold contrast between background and foreground**.

To produce effects that confuse and excite the eye

Optical illusions are **images or pictures that we perceive differently than they really are**. Put another way, optical illusions occur when our eyes send information to our brains that tricks us into perceiving something that does not match reality.

https://www.youtube.com/watch?v=2Y-qLhOK9Gg

https://www.youtube.com/watch?v=B8K4HXdHREA

OP ART

BRIDGET RILEY

Op art, short for optical art, is a style of visual art that uses optical illusions. Op art works are abstract, with many better known pieces created in black and white. Op artists put colours, shapes and patterns together in clever ways to create an optical illusion. This can make an image look like its moving! Op art can show hidden images, flashing and vibrating patterns, or shapes and lines swelling or warping.
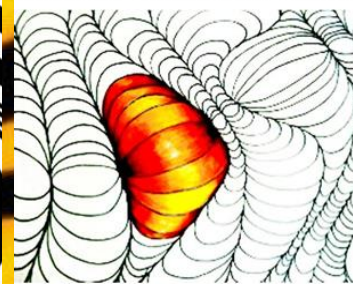
TUBES: How to create movement using organic lines, curved lines and tone.
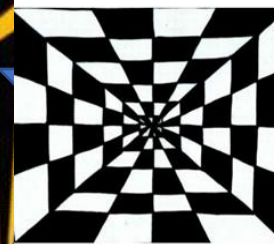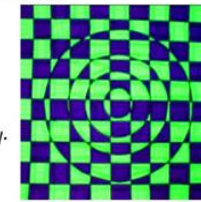
MONOCHROME: The term monochrome comes from the Ancient Greek -Roman 'monochromos' meaning 'having one colour'.

CHECKER BOARD: Use a compass or circular objects to draw 3-4 circles. Use a ruler to draw vertical and horizontal lines. Trace everything with a coloured pencil. Colour in the whole picture with alternating colours.

**TUNNEL:** Draw a rectangle and divide it into 4 with a horizontal and a vertical line. Now divide with two diagonal lines. Add more diagonal lines from the vanishing point. Draw the rectangle smaller each time inside the previous rectangle. Apply colour.

STAR: Draw a cross, make marks on the cross 1/2cm apart, starting from the middle where the lines meet. From the top vertical line, join it to the bottom dot closest to the centre on the horizon line. Repeat the process.
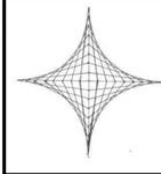
POINTING PENCILS: draw lines radiating outwards from the centre. Use curved lines to go produce arches which alternate in direction.

Bridget Riley the 'mother' of op art, is an abstract painter who was part of the American Op Art movement during the 1960s. When Bridget Riley first exhibited her black and white abstract paintings in the 1960s, people were amazed at how they seemed to move.
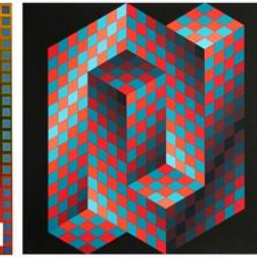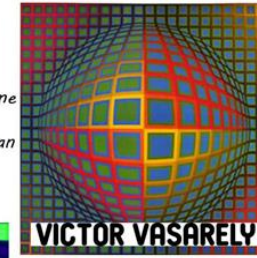
VICTOR VASARELY

Victor Vasarely, was a Hungarian-French artist, who is widely accepted as a "grandfather" and leader of the Op art movement. He was perhaps the first modern artist to realize that Kinetic Art did not have to move. Instead he created an extraordinary series of paintings and sculptures which used geometrical effects to suggest motion within static forms.
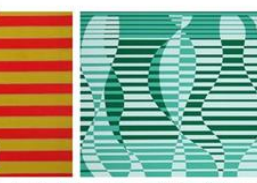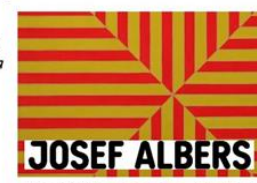
JOSEF ALBERS

Josef Albers was a German-born American artist. Albers was a tremendous influence as a teacher as well. He said "One line plus one line results in many meanings.

ILLUSION: a deceptive appearance or impression.

OPTICAL ILLUSION: Optical Illusions can use colour, light and patterns to create images that arguably appears to differ from reality.

TROMPE L'OEIL: visual illusion in art, especially as used to trick the eye into perceiving a painted detail as a three-dimensional object.
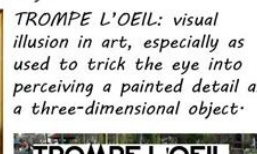
Year 9 Music Summer Term: Pop Song Composition

SAMPLE: A sample is a short extract of pre-recorded music created by someone else. Samples can be used in combinations to create a whole new piece of music. They can be
EDITED
CHOPPED UP/TRIMMED
LOOPED
LAYERED
SPED UP/SLOWED DOWN

BASS LINE – the part of the music with the lowest pitch, usually played by a bass guitar
CHORDS – a group of notes played together, often played by keyboards, piano or guitar
MELODY – the main tune, usually sung but can be played by a melody instrument e.g. trumpet, saxophone, piano etc.
BEATS – the rhythmic part usually played by drum kit or drum machine

INTRO	the first section of a song
VERSES	has the same melody but different lyrics each time
LINK	a optional short section often used to join different parts of a song together, often instrumental
PRE-CHORUS	an optional section of music that occurs before the CHORUS which helps the music move forward and "prepare" for what is to come.
CHORUS	occurs several times within a song and contains the most memorable HOOK/RIFF. Relays the message of the song and is repeated with the same melody and lyrics each time it is heard
MIDDLE 8/ BRIDGE	a section (often 8 bars in length) that provides contrasting musical material
CODA/ OUTRO	The final section of a popular song which brings it to an end

Fusion

- Fusion means to blend together
- Fusion music is a blend of 2 or more different styles or cultures
- Styles examples = Rock, Hip Hip, Classical, Soul
- Cultures examples = Chinese, Indian, Caribbean etc
- Fusion examples = Chinese Rock, Classical Indian, Caribbean Hip Hop etc

Musical Elements
Timbre	Sound quality
Pitch	High or low sounds
Texture	How many sounds?
Tempo	Fast or slow?
Duration	Long or short?
Structure	The musical plan
Dynamics	Loud or quiet?

MIDI – Musical Instrument Digital Interface = how computers and keyboards communicate
Audio – real recorded sounds

COMPOSITION KEYWORDS

Timing – triggering loops at the correct time
Instruments – use a variety of instrument sounds
Texture – the number of layers at the same time e.g. 1 sample, 3 samples or 7 samples all playing at the same time
Contrasts – changing things so it sounds different to the original
Capturing Scenes – a method on Ableton Live where you group samples to make a new section
Muting - where a sample (or all samples) are silenced for a period of time.
Arrange – where you take something you did not create and put it together differently to make your own version
Automated changes – programming the volume or speed so that it automatically changes
Improvise – create some music on the spot

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PSHE: Year 9 Summer Term: Sexuality and Gender Identity

Glossary

Asexual	A person who generally does not experience sexual attraction to any group of people
Androgyny	A gender expression that has elements of both masculinity and femininity
Biological Sex	The physical anatomy and gendered hormones one is born with.
Bisexual	A person who experiences sexual, romantic, physical, and/or spiritual attraction to people of their own gender as well as another gender
Cisgender	A description for a person whose gender identity, gender expression, and biological sex all align
LGBTQ+	Lesbian Gay Bisexual Trans Queer / Questioning + = Other
Sexuality	A persons sexual preference or orientation. Who they are attracted to.
Gender Dysphoria	Where a person experiences distress due to a mismatch of their biological sex and their gender identity.
Heterosexual	A medical definition for a person who is attracted to someone with the other gender.
Homosexual	A medical definition for a person who is attracted to someone with the same gender.
Transvestite	A person who dresses as the opposite gender expression for any one of many reasons, including relaxation, fun, and sexual gratification.
intersex	A person with a set of sexual anatomy that doesn't fit within the labels of female or male (e.g., XXY phenotype, uterus, and penis)
Pansexual	A person who experiences sexual, romantic, physical, and/or spiritual attraction for members of all gender identities/expressions
Transgender	A person whose gender identity is the binary opposite of their biological sex, who may undergo medical treatments to change their biological sex
Transsexual	A person whose gender identity is the binary opposite of their biological sex, who may undergo medical treatments to change their biological sex
: Gender Identity	Gender identity is a way to describe how you feel about your gender. You might identify your gender as a boy or a girl or something different. This is different from your sex, which is related to your physical body and biology.

Important legal changes that have affected LGBTQ+ people in the UK

- **2000: Government lifts the ban on lesbians and gay men serving in the Armed Forces.**

- **2001: Age of consent for gay/bi men is lowered to 16.**

- **2002: Equal rights are granted to same-sex couples applying for adoption.**

- **2003: Repeal of Section 28 - Section 28 was a law that made it illegal to talk positively about homosexuality in schools.**

- **2003: A new law comes into force protecting LGBT people from discrimination at work. Until 2003 employers could discriminate against LGBT people by not hiring them or not promoting them, just because of their sexual orientation or gender identity.**

- **2004: Civil Partnership Act is passed.**

- **2004: Gender Recognition Act is passed - This Act allowed trans people to change their legal gender. This means that they can get a new birth certificate that reflects who they really are, which helps for future legal processes like marriage.**

- **2007: It becomes illegal to discriminate against people because of their sexual orientation or gender identity when providing them with goods or services.**

- **2008: The Criminal Justice and Immigration Act makes 'incitement to homophobic hatred' a crime.**

- **2009: A new law gives better legal recognition to same-sex parents.**

- **2013: The Marriage (Same-Sex Couples) Act is passed.**

Trans Teens and Children

If a child is under 18 and thought to have gender dysphoria, they'll usually be referred to a specialist child and adolescent Gender Identity Clinic (GIC). Treatment is arranged with a multi-disciplinary team (MDT). This is a group may include specialists such as mental health professionals and paediatric endocrinologists. Most treatments offered at this stage are psychological, rather than medical or surgical.

If the child is diagnosed with gender dysphoria and they've reached puberty, they could be treated with gonadotrophin-releasing hormone (GnRH) analogues. These are synthetic hormones that suppress the hormones naturally produced by the body. They also suppress puberty and can help delay potentially distressing physical changes caused by the body becoming even more like that of the biological sex, until they're old enough for other treatment options. The effects of treatment with GnRH analogues are considered to be fully reversible, so treatment can usually be stopped at any time. Teenagers who are 17 years of age or older may be seen in an adult gender clinic. They are entitled to consent to their own treatment and follow the standard adult protocols.

Gender Reassignment surgery will not be considered until a person has reached 18 years of age.

Schools and LGBTQ+ Students

All Schools are required to have a policy relating to LGBTQ+ Students and how they are supported in schools. However each case will be dealt with on an individual basis as to what is best for the students. Discussions will be conducted with Safe guarding team, parents, wellbeing teams and appropriate external agencies involved in the students care.

Where to get more help and support

- Parents and trusted family members

- Teachers and School Staff including School Nurse and Wellbeing Team

- Your Doctor or Community Nurse

- NHS Online

- Young Stonewall: https://www.youngstonewall.org.uk/

- The Proud Trust – Local Support groups: https://www.theproudtrust.org

- Friends and Family of Lesbians and Gays: https://www.fflag.org.uk/

PSHE Year 9 E-Safety & Digital Citizenship

ST TERESA of CALCUTTA Catholic Academy Trust

Glossary

E-Safety Strategies and systems to help people stay safe online.

Digital Citizenship Accepted ways on behaving whilst engaging in online activity.

Cyber Bullying The use of electronic communication to bully a person, typically by sending messages of an intimidating or threatening nature

Hacking Gaining access to systems and computers which you do not have permission to access. Can be for malicious purposes.

Grooming When someone uses the internet to trick, force or pressure a young person into doing something they wouldn't normally do, this could be sexual behaviour or radical beliefs.

Digital Footprint The information about a particular person that exists on the internet as a result of their online activity. It can not be deleted.

Where to get more help and support

- Parents and trusted family.
- School Staff and Wellbeing Team
- Directly to the police.
- Report any inappropriate behaviour to the website.
- NSPCC - https://www.nspcc.org.uk
- Childline - Helpline: 0800 1111(24 hours, every day) / https://www.childline.org.uk
- CEOPS - https://www.ceop.police.uk/safety-centre/

10 strategies for staying safe online

1. Don't post any personal information online – like your address, email address or mobile number.
2. Think carefully before posting pictures or videos of yourself. Once you've put a picture of yourself online most people can see it and may be able to download it, it's not just yours anymore.
3. Keep your privacy settings as high as possible.
4. Never give out your passwords.
5. Don't befriend people you don't know.
6. Don't meet up with people you've met online. Speak to your parent or carer about people suggesting you do.
7. Remember that not everyone online is who they say they are
8. Think carefully about what you say before you post something online.
9. Respect other people's views, even if you don't agree with someone else's views doesn't mean you need to be rude.
10. 10.If you see something online that makes you feel uncomfortable, unsafe or worried: leave the website, turn off your computer if you want to and tell a trusted adult immediately.

Digital Footprints and Online Behaviour

A person's digital footprint cannot be deleted and can be accessed at any time through a simple social media or search engine search. To promote a positive digital footprint there are 5 simple rules:

1. Would you want your grandmother to see it? Is that photo/video/comment appropriate for the wider public audience? Would you want a future partner or employer to see it? Once something is online it stays forever.
2. Do you really think that is private? Just because your privacy settings are high doesn't mean that someone else can't repost or screenshot what you have posted.
3. Would you say it to someone's face? If you wouldn't say it to someone face, don't say it online. Portray yourself in a positive way as this may be seen by future friends, partners or employers.
4. Is this your work to publish/use? Reposting or using someone else's work if fine if you credit the original owner creator. If you don't it is plagiarism.
5. Would you want someone to do it to you? How would you feel if someone posted a picture of you or made a comments about you that you didn't like or want online?

Online Behaviour and the Law

- The Computer Misuse Act 1990 says you can't impersonate or steal someone else's identity online. This means that writing a status on social media pretending to be your friend is technically against the law as it creating fake profiles or websites.

- It is a criminal offence under the Communications Act 2003 to send messages using any public electronic communications network, such as Twitter or Facebook, which are grossly offensive or of an indecent, obscene or menacing character.

- It is a criminal offence under the Criminal Justice and Courts Act 2015 for someone to disclose private sexual images of you online or offline without your consent with the effect of causing you distress. This is more commonly known as 'revenge porn'.

- There are a range of other offences which the police can investigate including harassment, harassment when someone fears violence, and stalking under the Protection from Harassment Act 1997.

Each case will be taken on an individual basis looking at context and evidence to determine if a crime has been committed. If you believe you have been the victim of a crime screen shot the evidence and speak to the police.